



NASA Wallops Flight Facility Shoreline Protection Program Environmental Assessment

The National Aeronautics and Space Administration (NASA) Goddard Space Flight Center's Wallops Flight Facility (WFF) in conjunction with the U.S. Army Corps of Engineers (USACE) and the Bureau of Ocean Energy Management (BOEM) prepared an Environmental Assessment (EA) to evaluate the impacts of renourishing the shoreline infrastructure protection area adjacent to NASA's Wallops Island launch range.

Why did WFF Need to Prepare an EA?

The project is needed because the shoreline beach berm and dune system, established to protect NASA's Wallops Island launch range infrastructure, has been eroded through storm wind and wave damage. The constructed beach system has served its intended purpose of reducing damage to the range assets. The effects of storms are most apparent within the southern half of the Wallops Island beach, where the majority of the highly critical launch assets are located. Within this area, the seaward half of the beach berm and dune system must be maintained to ensure the level of functionality that was originally intended through periodic beach renourishment and shoreline protection. Since the U.S. Department of Interior Bureau of Ocean Energy Management (BOEM) must authorize the use of sand from shoals in the Outer Continental Shelf and U.S. Army Corps of Engineers (USACE) Norfolk District would oversee the design, construction, and dunes permitting for the project, both are cooperating agencies with NASA in preparation of this EA. NASA is serving as the lead agency.

The Draft EA evaluates the environmental effects of a range of reasonable alternatives that would restore the Wallops Island shoreline infrastructure protection area in order to reduce the potential for damage to, or loss of, NASA, U.S. Navy, and Virginia Commercial Spaceflight Authority's Mid-Atlantic Regional Spaceport assets on Wallops Island from wave impacts associated with storm events.

The U.S. Department of Interior Bureau of Ocean Energy Management (BOEM) and US Army Corps of Engineers (USACE) Norfolk District are cooperating agencies with NASA in preparation of this EA. NASA is serving as the lead agency.





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What is the Proposed Action?

The Proposed Action is to protect the Wallops Island shoreline through beach renourishment, construction of offshore breakwaters, and/or repair and extension of the existing seawall. The Proposed Action would be implemented in phases over the next 7 years.

Alternatives Evaluated

Several alternative actions were evaluated in the EA. All Alternatives would include repair and extension of the existing seawall located along 15,900 feet of the Wallops Island shoreline. The seawall extension would consist of the placement of rocks along up to 3,170 feet of shoreline. The seawall could also be repaired at any location.

Alternative 1 would also include: renourishing the beach along the Wallops Island shoreline infrastructure protection area using sand material from an offshore shoal (Unnamed Shoal A); and constructing offshore breakwaters. Sand would be harvested using trailing hopper dredges which would harvest sand and then discharge into a submerged pipeline, through which a sand/water slurry would be pumped to the beach where it would be graded using bulldozers and similar equipment. Up to 12 breakwaters would be constructed, in sets of two or three, between the existing sets of breakwaters and approximately 200 feet offshore.

Alternative 2 would include seawall extension and beach renourishment.

Alternative 3 would include seawall extension and breakwater construction.

The No Action Alternative, required in National Environmental Policy Act analyses, serves as a baseline for comparing impacts of the Proposed Action. The No Action Alternative for this EA means that NASA would not restore the Wallops Island shoreline infrastructure protection area beach and dune system to their full functionality, extend or repair the seawall, or construct nearshore breakwater structures.





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Environmental Impacts and Permitting

NASA Wallops Flight Facility Shoreline Protection Program Environmental Assessment analyzed the potential effects of the proposed action alternatives on the following resources:



Coastal Geology

Water Quality

Coastal Zone Management

Air Quality

Noise

Benthos

Wildlife

**Fisheries and Essential
Fish Habitat**

Marine Mammals

Special Status Species

Cultural Resources

A number of permits and consultations are required for the project. Some are ongoing at this time but will be completed before implementation of the Proposed Action. These include:

- Federal Coastal Zone Consistency Determination from Virginia Department of Environmental Quality
- Essential Fish Habitat Consultation with National Oceanic and Atmospheric Administration (NOAA) Fisheries
- Marine Mammal Protection Act Consultation with National Oceanic and Atmospheric Administration (NOAA) Fisheries
- Endangered Species Act Consultation with National Oceanic and Atmospheric Administration (NOAA) Fisheries and U.S. Fish and Wildlife Service
- National Historic Preservation Act Consultation with Virginia State Historic Preservation Office
- Clean Water Act Individual Permit from U.S. Army Corps of Engineers, and Virginia Marine Resource Commission



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The National Environment Policy Act

The National Environmental Policy Act (NEPA) establishes a framework for considering the scope of environmental issues and concerns early in the Federal decision-making process. Public involvement is an essential part of the process. Through involving the public and completing detailed environmental analysis, the NEPA process helps the decision-maker arrive at the best possible informed decision.

During the Scoping Period, NASA sought input and suggestions from the public on proposed activities to be addressed in the EA. Following data collection and research, the potential effects of proposed action on resources were analyzed and the type and extent of impacts were identified.

The Draft Shoreline Protection Program EA has been made available for public review. WFF is seeking written comments on the analysis and findings presented in the Draft EA during the 30-day public comment period. Responses to relevant comments on the Draft EA will be included in the preparation of the Final EA.

How Can You Be Involved?

Your involvement in the decision-making process is important to NASA. To provide a comment, please mail or email your comment to:

Center NEPA Manager

Mail Stop 250

NASA Goddard Space Flight Center Wallops Flight Facility

34200 Fulton Street Wallops Island, VA 23337

Email: gsfc-dl-nepa@mail.nasa.gov

To ensure consideration in the Final EA, please provide comments no later than

January 17, 2026.

